



ELECTRONIC TUBE REFERENCE

ECC84

Voltage - Dual Triode (similar high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Twin triode designed for low-noise VHF cascode RF amplification, particularly in Band III television and radio tuner front ends at frequencies around 220 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9C12	BASE PINS	9
NOMINAL HEATER	6.3 V / 340 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	2000 Ω
TRANSCONDUCTANCE	0.0059 S
AMPLIFICATION FACTOR	24
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Published maximum ratings/characteristics promoted from source.</i>	

SECTION2 Triode	
PLATE RESISTANCE	2000 Ω
TRANSCONDUCTANCE	0.0059 S
AMPLIFICATION FACTOR	24
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	22 mA
<i>Second physical triode restored.</i>	

Dual triode for cascode RF amplification in television and VHF receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 La Radiotechnique

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1953 LA RADIOTECHNIQUE

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Indirect (cathodes isolees du filament)	68 V	Triode
Alimentation du filament en parallele Ulf	370 mA	Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension de l'anode	90 V	Triode
Tension de la grille	-1.5 V	Triode
Tension de l'anode	180 V	Triode
Puissance dissipee sur l'anode	2 W	Triode
Resistance du circuit de la grille G	1.5 Mohm	Triode
Resistance du circuit de la grille G'	0.5 Mohm	Triode
(cathode positive par rapport au filament). $V_{k'f}$	200 V	Triode
Tension entre filament et cathode K	100 V	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite de la grille	21 pF	Triode
Capacite de l'anode	0.45 pF	Triode
Capacite anode-grille	1.2 pF	Triode
Capacite anode-cathode	0.16 pF	Triode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite cathode-(grille +filament) Ck'(gJ'+1)	47 pF	Triode
Capacite anode-(grille + filament) Ca'(g'+f)	25 pF	Triode
Capacite cathode-filament + filament + grille G'	27 pF	Triode
	12 pF	Triode
Capacite anode A-anode A'	0.035 pF	Triode
Capacite grille G-anode A'	0.006 pF	Triode



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1953 RFT Rundfunk Technik

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1953 RFT RUNDFUNK TECHNIK

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	340 mA	Nominal
Maximum Plate Voltage	180 V	—
Maximum Plate Dissipation	2 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6000 μS	Typical
Amplification Factor	24	Typical
Plate Resistance	4000 ohm	Typical



SOURCE DATA APPENDIX

1958 Brimar Radio Valve No 7

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1958 BRIMAR RADIO VALVE NO 7
Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	335 mA	—
Application	LowNoiseVHFCascodeAmplifier	BandIII



SOURCE DATA APPENDIX

195X Tesla

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X TESLA
Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	340 mA	Nominal
Maximum Plate Voltage	250 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5900 μS	Typical
Amplification Factor	57	Typical
Plate Resistance	9700 ohm	Typical



SOURCE DATA APPENDIX

1961 Ferranti Technical Handbook

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	330 mA	—
MaximumOperatingFrequency	220 MHz	CascodeRFamplifier



SOURCE DATA APPENDIX

1963 Philips Electron Tubes Handbook V1a

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	EachSection
Plate current	12 mA	EachSection
Grid voltage	-1.5 V	EachSection
Transconductance	6 mA/V	EachSection
Amplification factor	24	EachSection
Plate resistance	2 k0hm	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply voltage	250 V	CascodeRF
Plate current	12 mA	CascodeRF

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate supply voltage	550 V	EachSection
Maximum plate voltage	180 V	EachSection
Maximum plate dissipation	2 W	EachSection
Maximum cathode current	22 mA	EachSection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-grid capacitance	1.2 pF	EachSection
Input capacitance	2.1 pF	GroundedCathode
Output capacitance	0.45 pF	GroundedCathode



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Mullard Receiving Tubes for Maintenance

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	EachSection
Plate current	12 mA	EachSection
Grid voltage	-1.5 V	EachSection
Transconductance	6 mA/V	EachSection
Amplification factor	24	EachSection
Plate resistance	2 k0hm	EachSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply voltage	250 V	CascodeRF
Plate current	12 mA	CascodeRF

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate supply voltage	550 V	EachSection
Maximum plate voltage	180 V	EachSection
Maximum plate dissipation	2 W	EachSection
Maximum cathode current	22 mA	EachSection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-grid capacitance	1.2 pF	EachSection
Input capacitance	2.1 pF	GroundedCathode
Output capacitance	0.45 pF	GroundedCathode


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Mazda Belvu

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1968 MAZDA BELVU

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	330 mA	Published nominal value
Transconductance	6000 μ S	Published nominal or operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	2 W	Published maximum rating
Cascode application	RF cascode amplifier	Published intended use


SOURCE DATA APPENDIX

1999 Philips E-Z

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS E-Z

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
input conductance at,	1 A	input conductance at, 200 lc/s) 1)
Conductance d'entrée a	250 V	Conductance d'entrée a 200 lc/s = 250 pA/V
Noise Figure	1	Noise Figure 1)
The noise figure will be reduced to about	5 A	The noise figure will be reduced to about 5 when the

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
1.7The section a,g,ki.ko is the grounded cathode triode	1.7 A	1.7The section a,g,ki.ko is the grounded cathode triode
2.The grounded cathode section has two cathode leads,	2 A	2.The grounded cathode section has two cathode leads,
1.7.a section a,g,ki.Ko est la triode & cathode & la terre	1.7 A	1.7.a section a,g,ki.Ko est la triode & cathode & la terre
2.La triode a cathode &	1 A	2.La triode a cathode & 1a terre a deux connections de
la cathode,	8 A	la cathode, 1'une (kl) destinée d'être connectée au

TUBE TINKER

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